

**East Venezuela Fold and Thrust Belt, Assessment Unit 60980101**  
**Assessment Results Summary**

[MMBO, million barrels of oil. BCFG, billion cubic feet of gas. MMBNGL, million barrels of natural gas liquids. MFS, minimum field size assessed (MMBO or BCFG). Prob., probability (including both geologic and accessibility probabilities) of at least one field equal to or greater than the MFS. Results shown are fully risked estimates. For gas fields, all liquids are included under the NGL (natural gas liquids) category. F95 represents a 95 percent chance of at least the amount tabulated. Other fractiles are defined similarly. Fractiles are additive under the assumption of perfect positive correlation. Shading indicates not applicable]

Field Type	MFS	Prob. (0-1)	Undiscovered Resources												Largest Undiscovered Field (MMBO or BCFG)			
			Oil (MMBO)				Gas (BCFG)				NGL (MMBNGL)				F95	F50	F5	Mean
			F95	F50	F5	Mean	F95	F50	F5	Mean	F95	F50	F5	Mean	F95	F50	F5	Mean
Oil Fields	4	1.00	1,095	4,340	10,776	4,928	2,049	8,421	22,670	9,868	114	491	1,414	592	246	1,031	4,029	1,412
Gas Fields	24						2,655	10,403	23,545	11,430	110	445	1,096	504	610	2,222	7,770	2,900
Total		1.00	1,095	4,340	10,776	4,928	4,704	18,824	46,215	21,298	224	936	2,510	1,096				

**60980101**  
**East Venezuela Fold and Thrust Belt**  
**Monte Carlo Results**

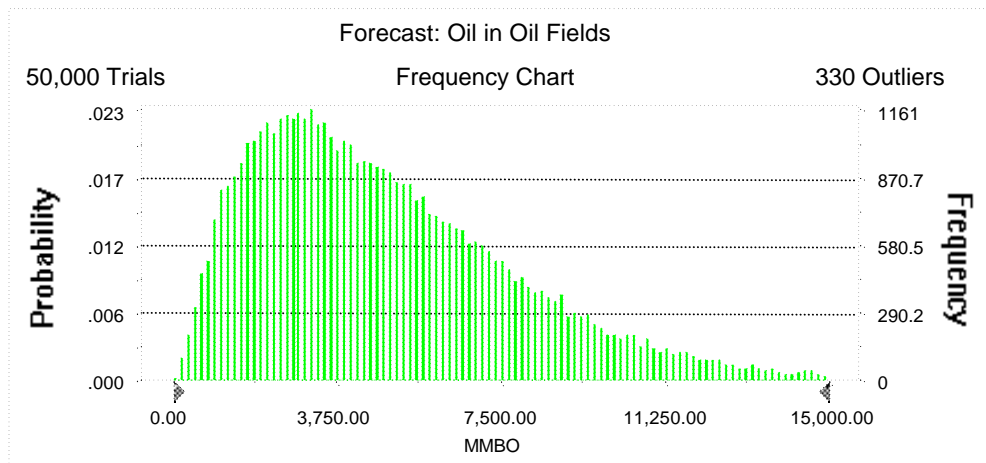
**Forecast: Oil in Oil Fields**

**Summary:**

Display range is from 0.00 to 15,000.00 MMBO  
Entire range is from 75.76 to 25,272.27 MMBO  
After 50,000 trials, the standard error of the mean is 13.70

**Statistics:**

	<u>Value</u>
Trials	50000
Mean	4,927.85
Median	4,340.08
Mode	---
Standard Deviation	3,063.63
Variance	9,385,820.59
Skewness	1.05
Kurtosis	4.33
Coefficient of Variability	0.62
Range Minimum	75.76
Range Maximum	25,272.27
Range Width	25,196.52
Mean Standard Error	13.70



**60980101**  
**East Venezuela Fold and Thrust Belt**  
**Monte Carlo Results**

**Forecast: Oil in Oil Fields (cont'd)**

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	75.76
95%	1,094.96
90%	1,532.74
85%	1,904.65
80%	2,254.77
75%	2,596.86
70%	2,926.97
65%	3,257.32
60%	3,592.83
55%	3,960.84
50%	4,340.08
45%	4,733.99
40%	5,155.61
35%	5,602.61
30%	6,107.21
25%	6,666.20
20%	7,294.92
15%	8,079.76
10%	9,100.31
5%	10,775.98
0%	25,272.27

End of Forecast

**60980101**  
**East Venezuela Fold and Thrust Belt**  
**Monte Carlo Results**

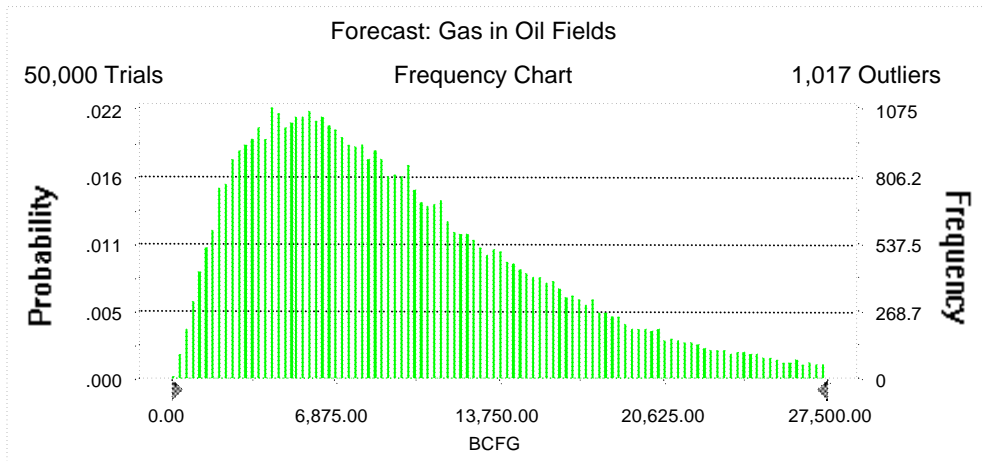
**Forecast: Gas in Oil Fields**

**Summary:**

Display range is from 0.00 to 27,500.00 BCFG  
Entire range is from 172.45 to 58,577.52 BCFG  
After 50,000 trials, the standard error of the mean is 29.51

**Statistics:**

	<u>Value</u>
Trials	50000
Mean	9,868.50
Median	8,420.72
Mode	---
Standard Deviation	6,597.85
Variance	43,531,680.71
Skewness	1.29
Kurtosis	5.28
Coefficient of Variability	0.67
Range Minimum	172.45
Range Maximum	58,577.52
Range Width	58,405.07
Mean Standard Error	29.51



**60980101**  
**East Venezuela Fold and Thrust Belt**  
**Monte Carlo Results**

**Forecast: Gas in Oil Fields (cont'd)**

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	172.45
95%	2,048.86
90%	2,882.78
85%	3,618.21
80%	4,302.19
75%	4,960.10
70%	5,628.24
65%	6,282.92
60%	6,955.65
55%	7,675.40
50%	8,420.72
45%	9,215.62
40%	10,051.40
35%	10,994.64
30%	12,040.83
25%	13,282.15
20%	14,700.96
15%	16,409.75
10%	18,741.55
5%	22,670.30
0%	58,577.52

End of Forecast

**60980101**  
**East Venezuela Fold and Thrust Belt**  
**Monte Carlo Results**

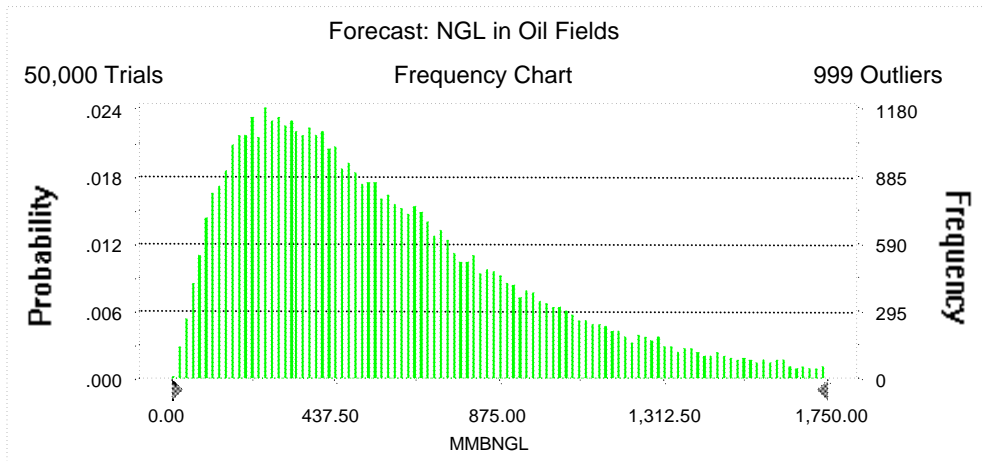
**Forecast: NGL in Oil Fields**

**Summary:**

Display range is from 0.00 to 1,750.00 MMBNGL  
Entire range is from 9.69 to 4,647.64 MMBNGL  
After 50,000 trials, the standard error of the mean is 1.88

**Statistics:**

	<u>Value</u>
Trials	50000
Mean	591.98
Median	491.14
Mode	---
Standard Deviation	420.43
Variance	176,758.25
Skewness	1.47
Kurtosis	6.22
Coefficient of Variability	0.71
Range Minimum	9.69
Range Maximum	4,647.64
Range Width	4,637.95
Mean Standard Error	1.88



**60980101**  
**East Venezuela Fold and Thrust Belt**  
**Monte Carlo Results**

**Forecast: NGL in Oil Fields (cont'd)**

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	9.69
95%	114.44
90%	163.63
85%	205.16
80%	245.08
75%	283.13
70%	321.59
65%	362.77
60%	402.82
55%	445.04
50%	491.14
45%	541.54
40%	595.01
35%	653.91
30%	717.31
25%	793.43
20%	883.65
15%	996.54
10%	1,152.65
5%	1,414.27
0%	4,647.64

End of Forecast

**60980101**  
**East Venezuela Fold and Thrust Belt**  
**Monte Carlo Results**

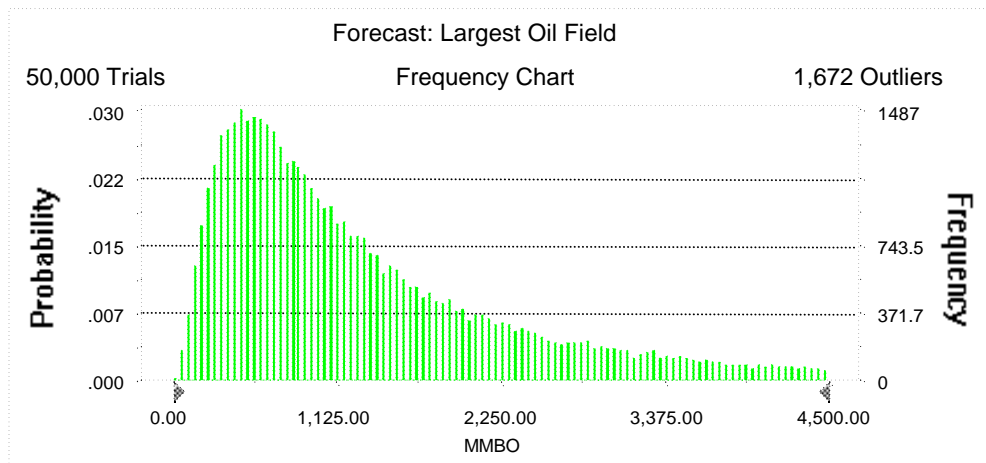
**Forecast: Largest Oil Field**

**Summary:**

Display range is from 0.00 to 4,500.00 MMBO  
Entire range is from 17.91 to 5,999.98 MMBO  
After 50,000 trials, the standard error of the mean is 5.27

**Statistics:**

	<u>Value</u>
Trials	50000
Mean	1,412.33
Median	1,031.43
Mode	---
Standard Deviation	1,177.76
Variance	1,387,120.80
Skewness	1.56
Kurtosis	5.21
Coefficient of Variability	0.83
Range Minimum	17.91
Range Maximum	5,999.98
Range Width	5,982.06
Mean Standard Error	5.27





**60980101**  
**East Venezuela Fold and Thrust Belt**  
**Monte Carlo Results**

**Forecast: Largest Oil Field (cont'd)**

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	17.91
95%	245.85
90%	338.86
85%	420.11
80%	497.62
75%	574.96
70%	653.51
65%	736.35
60%	828.10
55%	924.25
50%	1,031.43
45%	1,149.68
40%	1,286.37
35%	1,439.73
30%	1,627.82
25%	1,864.38
20%	2,156.30
15%	2,534.95
10%	3,085.95
5%	4,028.99
0%	5,999.98

End of Forecast

**60980101**  
**East Venezuela Fold and Thrust Belt**  
**Monte Carlo Results**

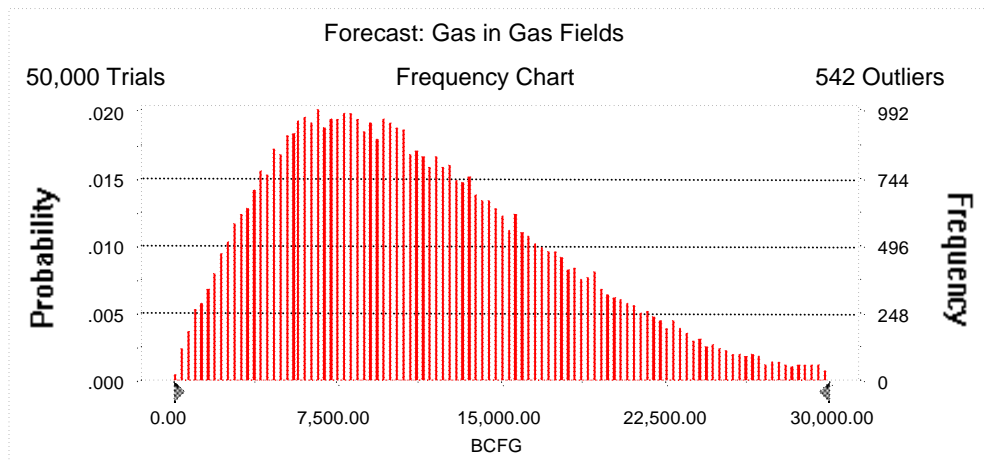
**Forecast: Gas in Gas Fields**

**Summary:**

Display range is from 0.00 to 30,000.00 BCFG  
Entire range is from 130.29 to 47,439.50 BCFG  
After 50,000 trials, the standard error of the mean is 29.32

**Statistics:**

	<u>Value</u>
Trials	50000
Mean	11,429.94
Median	10,403.38
Mode	---
Standard Deviation	6,556.60
Variance	42,989,017.67
Skewness	0.84
Kurtosis	3.74
Coefficient of Variability	0.57
Range Minimum	130.29
Range Maximum	47,439.50
Range Width	47,309.22
Mean Standard Error	29.32



**60980101**  
**East Venezuela Fold and Thrust Belt**  
**Monte Carlo Results**

**Forecast: Gas in Gas Fields (cont'd)**

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	130.29
95%	2,655.01
90%	3,849.54
85%	4,802.73
80%	5,655.81
75%	6,441.33
70%	7,229.54
65%	7,999.77
60%	8,782.35
55%	9,597.54
50%	10,403.38
45%	11,241.33
40%	12,171.77
35%	13,124.96
30%	14,180.80
25%	15,356.18
20%	16,698.49
15%	18,333.44
10%	20,422.57
5%	23,544.70
0%	47,439.50

End of Forecast

**60980101**  
**East Venezuela Fold and Thrust Belt**  
**Monte Carlo Results**

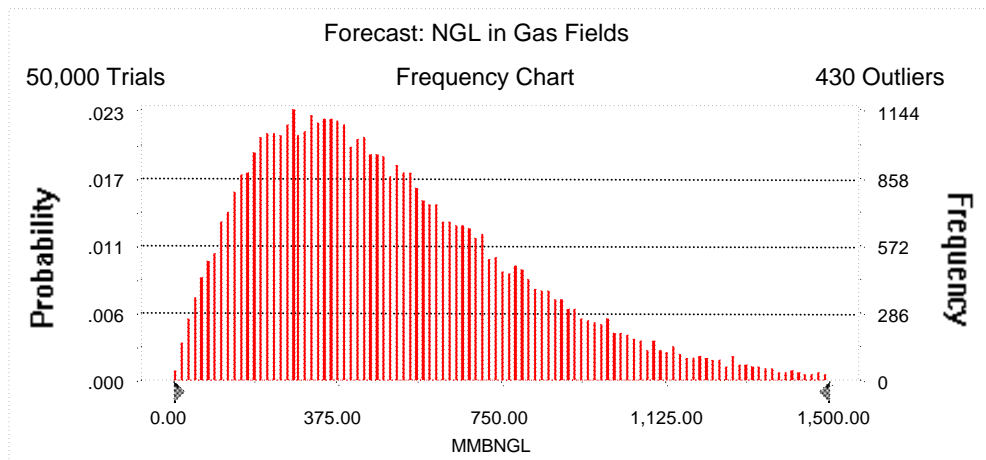
**Forecast: NGL in Gas Fields**

**Summary:**

Display range is from 0.00 to 1,500.00 MMBNGL  
Entire range is from 4.59 to 2,901.26 MMBNGL  
After 50,000 trials, the standard error of the mean is 1.39

**Statistics:**

	<u>Value</u>
Trials	50000
Mean	503.54
Median	445.20
Mode	---
Standard Deviation	311.80
Variance	97,217.81
Skewness	1.10
Kurtosis	4.70
Coefficient of Variability	0.62
Range Minimum	4.59
Range Maximum	2,901.26
Range Width	2,896.67
Mean Standard Error	1.39



**60980101**  
**East Venezuela Fold and Thrust Belt**  
**Monte Carlo Results**

**Forecast: NGL in Gas Fields (cont'd)**

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	4.59
95%	109.63
90%	158.46
85%	199.08
80%	235.18
75%	270.61
70%	304.78
65%	339.26
60%	373.15
55%	408.10
50%	445.20
45%	483.85
40%	525.28
35%	568.86
30%	619.36
25%	675.54
20%	738.29
15%	818.52
10%	922.99
5%	1,095.85
0%	2,901.26

End of Forecast

**60980101**  
**East Venezuela Fold and Thrust Belt**  
**Monte Carlo Results**

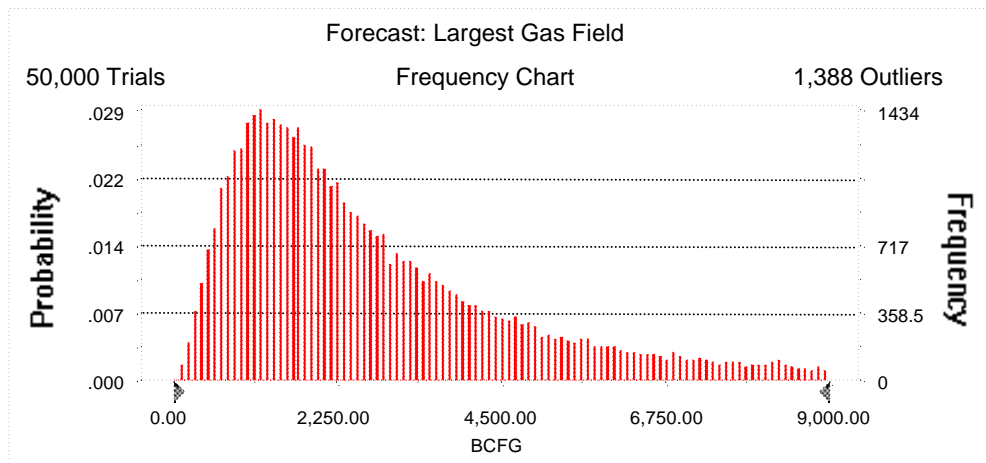
**Forecast: Largest Gas Field**

**Summary:**

Display range is from 0.00 to 9,000.00 BCFG  
Entire range is from 47.46 to 11,999.61 BCFG  
After 50,000 trials, the standard error of the mean is 9.95

**Statistics:**

	<u>Value</u>
Trials	50000
Mean	2,900.35
Median	2,221.71
Mode	---
Standard Deviation	2,223.98
Variance	4,946,072.42
Skewness	1.54
Kurtosis	5.30
Coefficient of Variability	0.77
Range Minimum	47.46
Range Maximum	11,999.61
Range Width	11,952.15
Mean Standard Error	9.95



**60980101**  
**East Venezuela Fold and Thrust Belt**  
**Monte Carlo Results**

**Forecast: Largest Gas Field (cont'd)**

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	47.46
95%	609.51
90%	827.19
85%	1,007.22
80%	1,168.01
75%	1,328.12
70%	1,492.01
65%	1,660.72
60%	1,830.73
55%	2,015.90
50%	2,221.71
45%	2,446.63
40%	2,707.75
35%	3,004.34
30%	3,355.96
25%	3,766.25
20%	4,300.16
15%	4,984.70
10%	6,008.01
5%	7,769.67
0%	11,999.61

End of Forecast

**60980101**  
**East Venezuela Fold and Thrust Belt**  
**Monte Carlo Results**

**Assumptions**

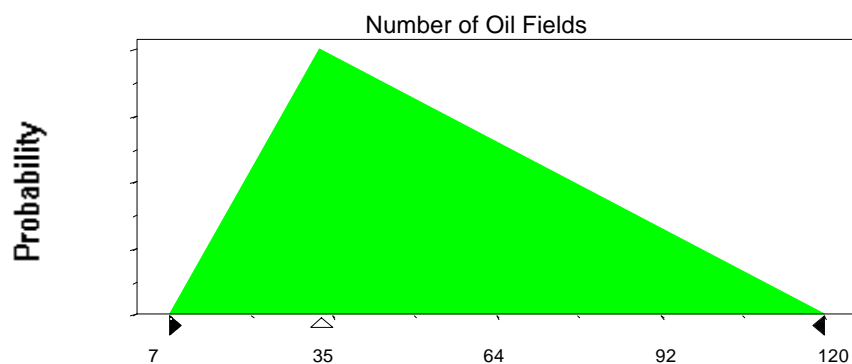
**Assumption: Number of Oil Fields**

Triangular distribution with parameters:

Minimum	7
Likeliest	33
Maximum	120

Selected range is from 7 to 120

Mean value in simulation was 53



**Assumption: Sizes of Oil Fields**

Lognormal distribution with parameters:

Mean	100.66
Standard Deviation	625.20

Shifted parameters

104.66
625.2

Selected range is from 0.00 to 5,996.00

Mean value in simulation was 88.84

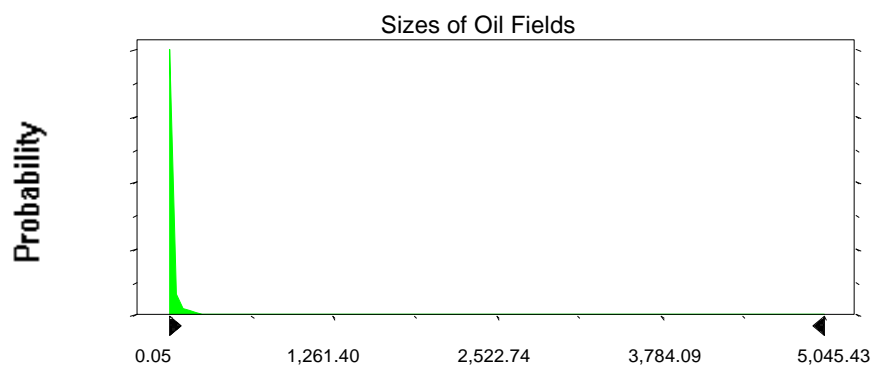
4.00 to 6,000.00

92.84



**60980101**  
**East Venezuela Fold and Thrust Belt**  
**Monte Carlo Results**

**Assumption: Sizes of Oil Fields (cont'd)**



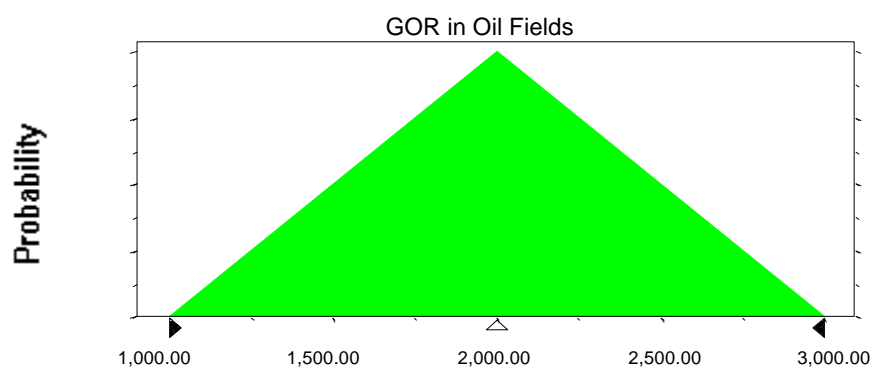
**Assumption: GOR in Oil Fields**

Triangular distribution with parameters:

Minimum	1,000.00
Likeliest	2,000.00
Maximum	3,000.00

Selected range is from 1,000.00 to 3,000.00

Mean value in simulation was 2,000.89



**60980101**  
**East Venezuela Fold and Thrust Belt**  
**Monte Carlo Results**

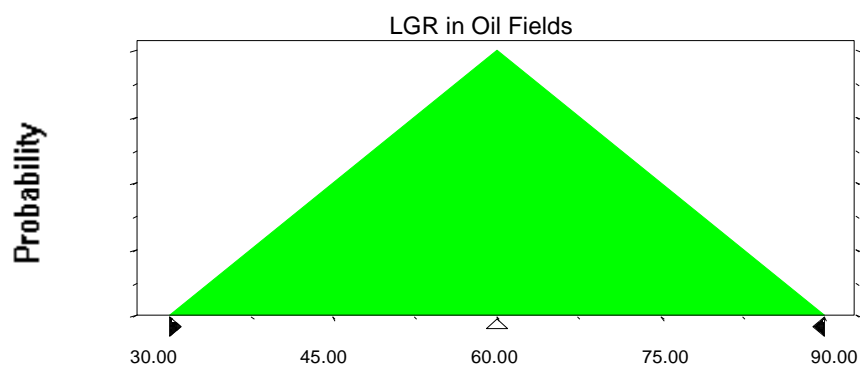
**Assumption: LGR in Oil Fields**

Triangular distribution with parameters:

Minimum	30.00
Likeliest	60.00
Maximum	90.00

Selected range is from 30.00 to 90.00

Mean value in simulation was 60.00



**Assumption: Number of Gas Fields**

Triangular distribution with parameters:

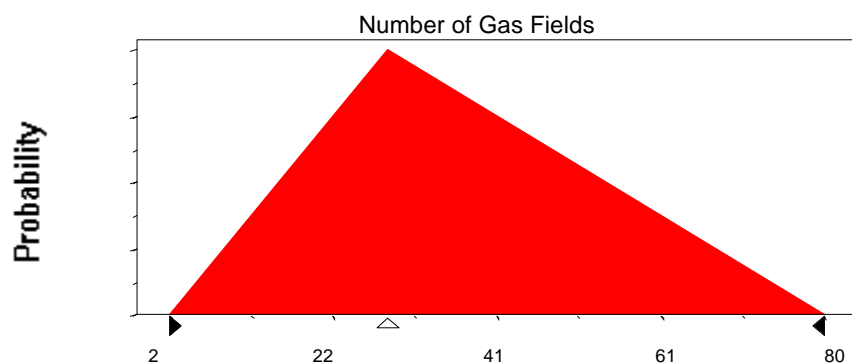
Minimum	2
Likeliest	28
Maximum	80

Selected range is from 2 to 80

Mean value in simulation was 37

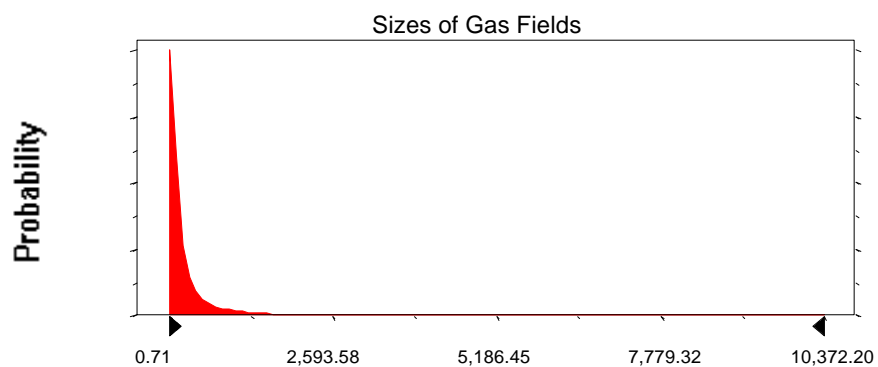
**60980101**  
**East Venezuela Fold and Thrust Belt**  
**Monte Carlo Results**

**Assumption: Number of Gas Fields (cont'd)**



**Assumption: Sizes of Gas Fields**

Lognormal distribution with parameters:		Shifted parameters
Mean	308.08	332.08
Standard Deviation	1,059.79	1,059.79
Selected range is from 0.00 to 11,976.00		24.00 to 12,000.00
Mean value in simulation was 288.20		312.2



**60980101**  
**East Venezuela Fold and Thrust Belt**  
**Monte Carlo Results**

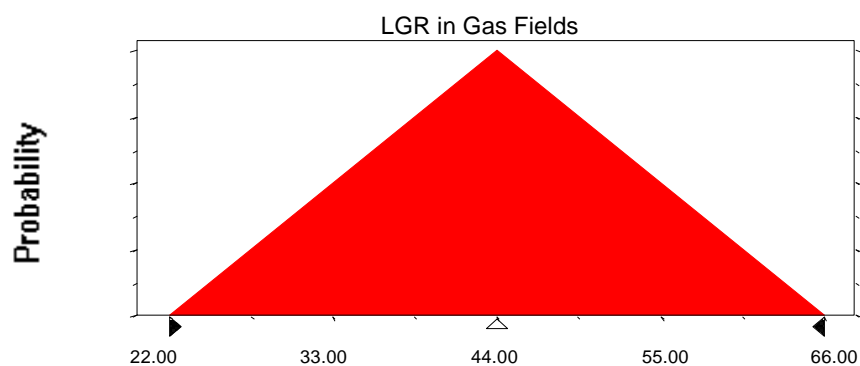
**Assumption: LGR in Gas Fields**

Triangular distribution with parameters:

Minimum	22.00
Likeliest	44.00
Maximum	66.00

Selected range is from 22.00 to 66.00

Mean value in simulation was 44.07



End of Assumptions

Simulation started on 7/16/99 at 9:34:32

Simulation stopped on 7/16/99 at 10:23:14